

Washington, D.C. 20520

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MEMORANDUM FOR MR. ROBERT C. MCFARLANE THE WHITE HOUSE

SUBJECT: Chemical Weapons (CW) Verification Study

Pursuant to the President's direction in NSDD-18, "United States Chemical and Biological Weapons Arms Control Policy" (dated January 4, 1982), the attached study, entitled "Verification of a Comprehensive Prohibition of Chemical Weapons Development, Production and Stockpiling," is hereby forwarded to you. This study was approved by the Chemical and Biological Weapons (CBW) Arms Control IG on January 16, 1984. An Executive Summary of the study and its recommendations has also been reviewed by the IG and is provided (at Tab 1) to facilitate your review.

Only the DCI expressed differences of view regarding the content of the study. These differences concern the study's recommendations that: (1) a long-range plan be developed which assesses the additional personnel and funding resources we will require to support U.S. monitoring of a CW treaty, and (2) the USG establish an internal mechanism to allow for early identification of and action on possible compliance problems under a CW treaty regime. Since neither issue affects the substance of U.S. negotiating positions for a CW treaty, and since no other member of the IG shared the DCI view or expressed any other differences or disagreement with the study, the IG accepted DCI dissent on these two points and proceeded to approve the study. (The DCI view has been noted both in the study and the Executive Summary.) Additionally, at agencies' request, those general comments on the study that were provided for the record have been forwarded to you. (These comments are attached at Tab 2.)

The study supplements and elaborates on the "Detailed U.S. Views on the Contents of a Chemical Weapons Ban" which were approved by NSDD-79 (dated February 1, 1983) and formally tabled in the Committee on Disarmament on February 10, 1983.

Charles Hill Executive Secretary

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Attachments:

Tab 1 -- Executive Summary of the CW Verification Study.

Tab 2 -- Agencies' General Comments on the study.

Tab 3 -- CW Verification Study.

TAB 1

Executive Summary

On January 4, 1982, the President signed NSDD-18, approving U.S. policy on chemical and biological weapons (CBW) arms control. This policy directive established, inter alia, that the U.S. would: (1) support the eventual objective of concluding a complete and verifiable prohibition of chemical weapons (CW) development, production and stockpiling; and (2) participate in work toward this end in the 40-nation Geneva Committee on Disarmament (CD) while "allowing the U.S./Soviet negotiations to lapse informally." In this context, it was recognized that, for the foreseeable future, a complete CW prohibition would be unverifiable by National Technical Means alone. Therefore, the President directed that, in support of U.S. CW arms control objectives, a study be conducted, and recommendations submitted, on United States Government positions with respect to verification.

Pursuant to that directive, the study has been conducted by the Working Group of the Chemical and Biological (CBW) Arms Control Interdepartmental Group (IG). The study:

- (1) examines the activities and capabilities which contribute to an offensive CW warfighting capability;
- (2) assesses the level of verification needed for each activity and whether differing levels should be applied to certain states or categories of states;
- (3) evaluates current monitoring capabilities;
- (4) identifies monitoring problem areas;
- (5) outlines a series of specific measures, in addition to NTM, for enhancing verification; and
- (6) presents proposals for a U.S. position on verification of a comprehensive CW ban.

The study concludes that verifying compliance with a comprehensive CW ban is a highly difficult and complex undertaking. Using a combination of current state-of-the-art monitoring capabilities and associated measures (primarily on-site inspections), the U.S. can have "high" to "high/ moderate" confidence in its ability to monitor certain aspects

of a treaty (e.g., destruction of declared stockpiles and facilities, non-production at declared prohibited facilities). For certain other aspects (e.g., non-CW production at declared permitted facilities), measures can be devised which can raise U.S. monitoring confidence to "moderate," reducing -- but not eliminating -- potential risks. For still others (e.g., undeclared stocks and facilities), however, the benefits of the measures proposed in the study raise monitoring confidence levels only from "very low" to "low." This situation will prevail for the foreseeable future.

Specifically, in the case of prohibited <u>development</u> activities, the study concludes that such activities are not practicably verifiable. It points out, however, that this aspect of a comprehensive ban, in isolation, poses a less immediate threat, although continued illegal development activities could, overtime, facilitate break out of the remaining treaty provisions more rapidly. Such activities would have to be verified primarily by national intelligence efforts and challenge inspection procedures.

In the case of non-production, the proposed verification arrangements will, overtime, provide assurance that declared CW production and filling facilities have been destroyed. However, the measures do not assure that prohibited production and filling activities are not occurring clandestinely at an undeclared site or sites. Challenge inspection provisions can increase confidence somewhat, but not to the desired level of assurance of compliance. Non-production of prohibited chemicals in excess of agreed permitted quantities (i.e., one metric ton annually for protective purposes) at permitted production facilities can be monitored with "moderate" to "high moderate" confidence using the measures proposed. The level of confidence of such non-production at declared facilities is increased quite substantially, in fact, by these measures. Confidence of non-production at undeclared facilities, however, remains "very low," as does confidence that high-risk dual purpose chemicals could not be diverted on short notice from common industrial production to weapons purposes.

In the case of the destruction of declared <u>stockpiles</u>, the proposed verification arrangements provide assurance that the stockpiles which have been declared have been destroyed. The measures only slightly increase confidence levels concerning destruction of all CW stocks -- i.e., the measures do not eliminate the possibility that stocks of chemical weapons might be retained and stored clandestinely. The challenge inspection arrangements improve confidence levels somewhat in this regard,

but do not eliminate the potential for retention of a militarily significant CW threat.

In the case of <u>non-transfer</u> of chemical agents, munitions, or CW production/filling capabilities, the use of challenge procedures and national intelligence efforts are the only available courses of action. While such an arrangement will not provide much assurance, it will provide a legal course of action for dealing with potential problems should they arise.

The study also suggests that special bilateral verification arrangements concluded between the U.S. and the Soviet Union might be usefully considered, at an appropriate stage, to heighten confidence somewhat in Soviet compliance (although not to the desired confidence level) Such arrangements might include bilateral agreement to have preliminary exchanges of information which could build confidence, before entry into force of the agreement, about the accuracy and completeness of Soviet declarations and, thereby, contribute to our internal decision-making process about whether or not to ratify any new CW agreement. Similarly, the U.S. might also wish to consider negotiating special measures which would assure an official USG presence in on-site inspections of Soviet destruction operations and key Soviet facilities, and USG access to data provided in Soviet declarations and from international monitoring. Establishment of a special bilateral consultative mechanism, which would allow for private exchanges between the U.S. and Soviet Union on potential problems and ambiguities, might also contribute to increasing confidence.

The study also points out that the U.S. does not presently have any dedicated verification research program to improve the U.S. capability to monitor a chemical weapons ban. It suggests that such research in two areas -- detecting undeclared CW stockpiles and CW production facilities, and development of devices and technical procedures for carrying out treaty monitoring -- would be particularly useful and should be pursued.

The Working Group believes that the specific verification measures set forth below, if approved by the IG, would enhance the U.S. position on the contents of a comprehensive chemical weapons ban. They would also eliminate or decrease a number of the risks associated with conclusion of a ban. They would not, however, eliminate or decrease all risks sufficiently so that states could have confidence that no party to the agreement could pose a militarily significant risk.

The Working Group submits the following for the U.S. position on verification of a comprehensive CW ban:

- 1. With respect to <u>CW development</u>, the U.S. position should be that:
 - -- The accuracy of states' declarations concerning CW development facilities should be subject to verification using challenge procedures.
 - -- Parties should be required to provide, on a regular basis, information about R&D activities involving the use of permitted quantities of key CW agents and other relevent information which could contribute to building confidence in states' compliance.
- 2. With respect to <u>CW production</u>, the U.S. position should be that:
 - -- The accuracy of states' declarations concerning CW production/filling facilities and activities should be subject to international confirmation/verification promptly after declarations are made. All declared CW production/filling facilities should be submitted to international on-site inspection.
 - -- Immediately following confirmatory inspection, all declared CW production and filling facilities should be completely shutdown, according to agreed procedures, and secured, using tamper-resistant, remote monitoring sensors. This should be verified by international authorities. An inventory of key equipment, verified by international authorities, should also be submitted.
 - -- Thirty days after treaty entry into force for each party, states possessing chemical weapons should be required to submit a description of the methods and general timetable it will follow in destroying each of its declared CW production/filling facilities.
 - -- Destruction of all CW production/filling facilities (by razing), and their equipment, should be verified by on-site monitoring of the operation by an international team of expert representatives.
 - -- All declared plants producing chemicals agreed to pose a particular risk, but for purposes permitted

under the treaty, should be subject to on-site inspection on a random basis by an international team of expert representatives.

- -- Permitted production of super-toxic lethal chemicals up to an agreed amount, at a single, specialized production facility, should be subject to verification by a system combining tamper-resistant sensors and periodic, international on-site inspection.
- 3. With respect to <u>CW stockpiling</u>, the U.S. position should be that:
 - -- The accuracy of states' declarations concerning CW stockpiles should be subject to confirmation/verification by international on-site inspection promptly after declaration.
 - -- Immediately following confirmatory inspection, storage facilities should be secured by international inspectors using tamper-resistant remote monitoring sensors.
 - -- Within thirty days after entry into force of the agreement for each party, each state possessing chemical weapons should be required to submit to international authorities a description of the methods and approximate timetable it will follow in destroying its CW stocks.
 - -- Movement of CW stocks from storage sites to facilities for destruction should be verified by international monitoring at the storage site and destruction facility.
 - -- Destruction of CW stocks should be subject to systematic international on-site verification. Remote monitoring sensors, as well as international inspectors, should be used. International inspectors should be present continuously during destruction operations.
- 4. With respect to <u>CW transfer</u>, the U.S. position should be that:
 - , -- The accuracy of declarations, as well as activities which raise concerns about compliance with the non-transfer obligation, should be subject to verification using challenge procedures.

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- -- Verification of the declaration and destruction of CW agent/munitions and CW production capabilities transferred to another state party(ies) prior to entry into force of the agreement will be as specified in 2. and 3. above.
- 5. With respect to challenge verification measures, the U.S. position should be that:
 - -- In the event any Party to the agreement has evidence or other compelling information which gives rise to concerns that another party is not complying in whole or part with its obligations under the treaty, that state should have the right to challenge the party which gave rise to such concerns and request clarification, including on-site inspection.
 - -- Parties should not have a right to refuse inspection of declared CW storage sites or production facilities.
 - -- With respect to other facilities/sites, if any Party rejects a challenge or a requested on-site inspection, all parties to the agreement should be informed and the UN Security Council should be promptly notified.
- 6. With respect to arrangements for conduct of <u>on-site</u> inspections, the U.S. position should be that:
 - -- All parties should be strictly obligated not to interfere with or obstruct in any way the conduct of an on-site inspection.
 - -- No bureaucratic constraints (e.g., failure to issue visas promptly, governmental travel approval, lack of appropriate Host Country liaison) should be imposed which would interfere with the inspection or provide the Host Country with sufficient advance notification of the declared plant to be inspected so that possible prohibited activities could be covered up prior to the inspection.
- 7. With respect to <u>verification</u> research, the U.S. position should be that:
 - -- A co-ordinated program of CW verification research should be initiated by the Government.

- 8. With respect to future CW treaty compliance requirements, the U.S. position should be that:
 - -- A long-range plan for an interagency compliance monitoring support team, including assessments and recommendations for the additional personnel and funding resources required, should be developed.*
 - -- An internal USG intelligence assessment and policy mechanism for early identification and action concerning possible compliance problems should be developed and established.**

^{*} The DCI accepts that the Executive Branch should develop such a plan for the policy aspects, but notes that for the intelligence aspects, the need for this plan appears to be overtaken by events in the NSC Verification Committee and within US intelligence; e.g., by the agreement for analytic enhancements to the FY 85 intelligence budget and by the creation of a separate budget category for FY 86 and later years.

^{**} The DCI believes this step is not needed, because such a mechanism already exists in the NSC Verification Committee.

TAE 2

JCS Comments

"The JCS believe that the Study proposes the strongest verification regime for a comprehensive CW prohibition that can be devised at the present time. They believe negotiations must continue on this basis, and US negotiators must settle for nothing less.

"However, the recommended verification regime has militarily significant shortcomings (such as those with respect to undeclared stocks and undeclared facilities) which may cause a CW prohibition to be determined to be unacceptable for national security reasons.

"The JCS seriously question whether CW verification shortfalls can be satisfactorily resolved. Such a determination will ultimately depend on the outcome of a vigorous R&D effort to find solutions for existing shortcomings in monitoring capabilities and study to determine the precise military significance of such shortcomings as may remain.

"The JCS will thus reserve judgment on the acceptability of any CW prohibition eventually negotiated based on a thorough review of the actual treaty language and an assessment of the verification regime contained therein."

TAB 2

OSD Comments

"The CW Verification Study makes clear that, at a minimum, there are four things we need to know to verify a CW ban: (1) All declared stocks are destroyed, (2) All declared facilities are refraining from proscribed production, (3) Declared stocks are all the stocks and (4) Declared facilities are all the facilities. The Study concludes categorically that we cannot now or in the foreseeable future know the latter two things, even if all other parties would agree to our contemplated on-site verification measures. Moreover, the Study assesses that undetectable Soviet cheating through use of undeclared stocks and facilities could be militarily significant.

"Until further research demonstrates -- which it may or may not -- that acceptable verification is at least theoretically possible, the U.S. cannot prudently undertake negotiation of CW treaty text. In the Committee on Disarmament, we should use the Study both to show our seriousness in pursuing adequate verification and to -ducate others as to the continuing and major difficulties of that task. It is essential that we lower expectations, especially among our allies, about the prospects for quick progress toward the development of any draft treaty text. To that end, we should consider demarches about the conclusions of the Verification Study."

TAB 2

STATE Comments

"The Department of State fully endorses the Study and believes it enhances US positions on verifying a comprehensive CW ban. The Department also supports the JCS view that negotiations on a CW treaty must continue on the basis of the Study's conclusions and recommendations.

"The Department further shares the JCS view that an extensive program of CW-dedicated verification research is required over the coming years to try to find solutions to the problems that the Study identifies are associated with undeclared stockpiles and facilities. The Department believes this research should be initiated immediately and proceed concurrently with US participation in the Conference on Disarmament's (CD) negotiations on a treaty. In tabling the US draft treaty in the CD later this year, therefore, we believe the letter submitting the draft text should specifically identify these problem areas as unresolved and requiring development of verification arrangements beyond those set forth last year in the paper containing the US "Detailed Views" on a comprehensive CW ban."

TAB 3

CW Verification Study

attached here